

REMARKS

These remarks follow the order of the paragraphs of the office action. Relevant portions of the office action are shown indented and italicized. A listing of the claims is provided as required.

DETAILED ACTION

- 1. Claims 1-28 are presented for examination.*

In response, the applicant respectfully state claims 1- 12 were actually presented. Claims 13 - 17 are added to better protect the invention by employing Beauregard claims, without introducing new matter.

DRAWINGS

- 2. The drawings filed on March 5, 2002 are accepted by the Examiner.*

PRIORITY

- 3. Applicant has complied and receives the benefit of priority of an earlier filing date under 35 U.S.C. 119(a-d) to European Patent Application 01104203.3 filed February 22, 2001.*

Claim Rejections -35 USC § 101

- 4. 35 U.S.C. 101 reads as follows:*

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of mater, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

- 5. Claim 10 is rejected under 35 U.S.C. 101 because claim 10 directed to a system for executing nested transactions in an execution environment supporting a flat transaction only which is an abstract idea or the mere manipulation of an abstract idea.*

- 6. The claimed invention is directed to non-statutory subject matter because according to claim 10 the language of the claim raises a question as to whether the claim is directed to an abstract idea that is not tied to a technological art. According to the claim "A system for executing a nested transaction in an execution environment supporting a flat*

transaction only, and wherein a nested transaction encapsulates between a first Start Transaction operation and a corresponding first End Transaction operation is non-statutory for at least the reason that it is not tangibly embodied in a manner so as to be executable. It appears that the claimed "system" performs a checking process to determine whether a start transaction operation is to be done on a first nesting level of a hierarchy, likewise another determination is made in order to perform a start transaction within the first level of the hierarchy, in an effort to produce a sub transaction, these transactions are believed to be non-functional descriptive material.

Abstract ideas:

Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759, or the mere manipulation of abstract ideas, Schrader, 22 F.3d at 292-93, 30 USPQ2d at 1457-58, are not patentable. Claims to processes that do nothing more than solve mathematical problems or manipulate abstract ideas or concepts are more complex to analyze. If the "acts" of a claimed process manipulate only numbers, abstract concepts or ideas, or signals representing any of the foregoing, the acts are not being applied to appropriate subject matter. Schrader, 22 F.3d at 294-95, 30 USPQ2d at 1458-59. Thus, a process consisting solely of mathematical operations, i.e., converting One set of numbers into another set of numbers, does not manipulate appropriate subject matter and thus cannot constitute a statutory process. In practical terms, claims define non statutory processes if they: - consist solely of mathematical operations without some claimed practical application (i.e., executing a "mathematical algorithm"); or - simply manipulate abstract ideas, e.g., a bid (Schrader, 22 F.3d at 293-94, 30 USPQ2d at 1458-59) or a bubble hierarchy (Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759), without some claimed practical application. Claim 10 is not limited to tangible embodiments. To overcome this type of 101 rejection he claim needs to be amended to include only tangible embodiments (e.g., computer, computer readable media, memory, etc.).

The examiner suggests the applicant consider amending the preamble of the claim to state a "computer implemented" system in an effort to overcome the 101 rejection.

In response, the applicant respectfully states that claim 10 is amended to show that that it is "computer implemented" and is tangibly embodied in a manner so as to be executable. This overcomes the rejection under 35 U.S.C. 101, and claim 10 is allowable.

Allowable Subject Matter

7. Claims 5 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In response, the applicant respectfully state their appreciation of the allowable material. Claim 5 is amended putting it in independent form and includes all of the limitations of claims 1-4.

In response, the applicant respectfully states that as discussed below, it is shown that Chen does not teach a facade library as in claim 9, nor does Chen allude to the step of claim 9. Thus objected-to claim 9 is allowable on its own and because it ultimately depends on allowable claim 5.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent In the United States.

9. Claims 1-4, 6-8, and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen et al. (Pat. No. 5,878,206 filed March 25, 1997, hereinafter Chen).

In response, the applicant respectfully states that the invention in claims 1-4, 6-8, and 10-12 , are for methods of executing a nested transaction in an execution environment supporting flat transactions. These methods are often related to applications wherein a facade library provides access from an object oriented environment to said relational database system, wherein a transaction object comprises a depth counter, a CommitTransaction operation, and a RollbackTransaction operation as object methods.

The cited art to Chen, US Pat. No. 5,878,206, was filed: March 25, 1997, and is entitled, "Commit scope control in hierarchical information processes." The abstract of Chen reads, "An information system that enables a child transaction to broaden the visibility of its data updates to a wider scope than the scope of its parent transaction thereby enhancing concurrency but without sacrificing protection in that scope. The information system provides scoped transactions and provides failure handling in hierarchical information processes that contain scoped transactions

Thus although Chen deals with a problem similar to that of claims 1-4, 6-8, and 10-12 , Chen apparently does not anticipate the invention as claimed in claims 1-4, 6-8, and 10-12 .

10. Regarding Claims 1 and 10-12, Chen teaches a commit scope control in hierarchical information processes. The method and associated system for a commit scope control in hierarchical information processes as taught or suggested by Chen includes: checking whether the start transaction operation is on the first nesting level of the nested transaction (col. 1, lines 19-33, col. 4, lines 10-22), and issuing a corresponding start transaction operation within the execution environment only in the affirmative case (col. 1, lines 19-33, col. 4, lines 10-22).

In response, the applicant respectfully states that claim 1 is amended to specifically show that it is in regard to transactions, wherein a facade library provides access from an object oriented environment to a relational database system, wherein a transaction object comprises a depth counter, a CommitTransaction operation, and a RollbackTransaction operation as object methods. A review of Chen shows that Chen apparently is not concerned with a facade library which provides access from an object oriented environment to a relational database system, wherein a transaction object comprises a depth counter, a CommitTransaction operation, and a RollbackTransaction operation as object methods. A facade library as used in the claims is defined in the specification as,

There is no indication that Chen is concerned with a depth counter, a CommitTransaction operation, or a RollbackTransaction operation as object methods. Chen is apparently not concerned with a transaction object that includes a depth counter, a CommitTransaction operation, and a RollbackTransaction operation as object methods.

Furthermore there is no indication or allusion in the method of Chen to the advantages obtained using a facade library as in the invention claimed in the present invention. The present specification, on the bottom of page 8, reads,

The advantages of using a facade library by relational database access:

Attention is now shifted to the application programs using the JDBC and ODBC interfaces, As a preferred embodiment of the current invention Fig. I shows an architecture for using an RDBMS for data persistence. Fig. 1 gives an overview of how to implement the current invention within a facade library representing a mediator between the application environment and the execution environment for transactions JDBC or ODBC 100 is used to access an RDBMS 101. A re-usable facade library 102 is situated between the application program 103 and the RDBMS API 100. The term facade' is one

which describes a design pattern to provide a unified interface to a set of interfaces in a subsystem. The facade pattern defines a higher-level interface that makes the subsystem easier to use. In this case the library takes care of the translation of program objects to and from database triples by way of the SQL statements supported by JDBC and ODBC.

The facade library offers several APIs 104 that allow the application program to manipulate the data stored in the RDBMS. A minimal set of operations to be performed on objects would be create, delete read and write.

This is not alluded to in Chen. An attempt by the office action regarding claim 6, to use components in Chen to form a facade library does not provide the facade library as in claim 1 or claim 6. Thus claim 1, and all claims that depend thereon are allowable over the cited art.

11. Regarding Claim 2, Chen teaches checking, in case an end transaction operation is a commit transaction operation successfully terminating a transaction, whether an end transaction operation is on the first nesting level of the nested transaction and issuing a corresponding commit transaction operation within the execution environment only in the affirmative case (col. 1, lines 37-54, col. 2, lines 16-29).

In response, the applicant respectfully states that a review of the referenced portion in Chen, (col. 1, lines 37-54, col. 2, lines 16-29), shows no allusion to the method of claim 2, of a method performing an EndTransaction operation by: checking, in case said EndTransaction operation is a CommitTransaction operation successfully terminating a transaction, whether said EndTransaction operation is on said first nesting level of said nested transaction, and issuing a corresponding CommitTransaction operation within said execution environment only in the affirmative case but not otherwise. The referenced portions in the background of Chen refer to typical transactions which indeed includes a commit and end transaction. This is not the method claim 2. Thus claim 2 is allowable on its own and because it depend on claim 1.

12. Regarding Claim 3, Chen teaches performing an end transaction operation in case an end transaction operation is a rollback transaction aborting a transaction as unsuccessful by issuing a corresponding rollback transaction operation with the execution environment independent from the nesting level (col. 2, lines 54-61, col. 5, lines 33-59 and 64-67, col. 6, lines 1-57, col. 7, lines 10-18).

In response, the applicant respectfully states that the referenced portion of Chen, (col. 2, lines 54-61, col. 5, lines 33-59 and 64-67, col. 6, lines 1-57, col. 7, lines 10-18), indeed do not do, or

allude to, the step of claim 3, of “performing an EndTransaction operation in case said EndTransaction operation is a RollbackTransaction operation aborting a transaction as unsuccessful, by issuing a corresponding RollbackTransaction operation within said execution environment independent from the nesting level of said RollbackTransaction operation.” Certainly there is allusion to typical commit and roll back transactions but not in the matter claimed in claim 3, not concerned to a nesting level. Thus claim 3 is allowable on its own and because it ultimately depends on claim 1.

13. Regarding Claim 4, Chen teaches once a rollback transaction has been executed within the nested transaction, any further start transaction operation or any further end transaction operation within the nested transaction independent from the nesting level by rejecting it as being in error without issuing a corresponding start transaction operation or a corresponding end transaction operation to the execution environment (col. 2, lines 54-61, col. 5, lines 33-59 and 64-67, col. 6! lines 1-57, col. 7, lines 10-18).

In response, the applicant respectfully states that claim 4 reads,

A computerized method for executing a nested transaction in an execution environment supporting a flat transaction only according to claim 3, said method performing, once a RollbackTransaction operation has been executed within said nested transaction, any further StartTransaction operation or any further EndTransaction operation within said nested transaction independent from its nesting level by rejecting it as being in error without issuing a corresponding StartTransaction operation or a corresponding EndTransaction operation to the execution environment.

The referenced portion of Chen, (col. 2, lines 54-61, col. 5, lines 33-59 and 64-67, col. 6, lines 1-57, col. 7, lines 10-18), indeed Chen uses some of the words in claim 4, but do not do, or allude to, the step above of claim 4. Nor is Chen concerned with a nesting level. Thus claim 4 is allowable on its own and because it ultimately depends on claim 1.

14. Regarding Claim 6, Chen teaches the means which essentially comprises the same means as a facade library (col. 3, lines 66-67, col. 4, lines 1-11) a data base system (col. 3, lines 33-42)! and a façade library provides access from an object oriented environment to a relational database system (col. 3, lines 33-42 and 56-67 col. 4, lines 1-11, col. 11, lines 24-38 and 66-67, col. 12, lines 1-11).

In response, the applicant respectfully states that facade library of claim 6 is apparently not even alluded to in Chen. Claim 6 includes a method. “performed by a facade library separate from said execution environment, and said execution environment is a database system, and said facade library provides access from an object oriented environment to said relational database system.” The office action is attempting to form a facade library from components in Chen. This is not the facade library of claim 6. Thus claim 6 is allowable on its own and because it depends on allowable claim 5.

15. Regarding Claim 7, Chen teaches façade library comprises a store object class providing access to database system and store object class providing start transaction operation (col. 3, Pines 33-42 and 66-67 col. 4, lines 1-11, col. 5, lines 33-59 and 64-67, col. 6, lines 1-57, col. 11, lines 24-38 and 66-67, col. 12, lines 1-11).

In response, the applicant respectfully states that as discussed above, Chen does not teach a facade library as in claim 7, nor does Chen allude to the step of claim 7. Thus claim 7 is allowable on its own and because it ultimately depends on allowable claim 5.

16. Regarding Claim 8, the limitations of this claim has been noted in the rejections of claims 1 and 4 above. It is therefore rejected as set forth above.

In response, the applicant respectfully states that as discussed above, Chen does not teach a facade library as in claim 8, nor does Chen allude to the step of claim 8. Thus claim 8 is allowable on its own and because it ultimately depends on allowable claim 5.

In response, the applicant respectfully states that as discussed above, Chen does not teach a facade library as in claim 7, nor does Chen allude to the step of claim 7. Thus claim 7 is allowable on its own and because it ultimately depends on allowable claim 5.

Claims 11 and 12 are amended as in claim 1, to bring the application to allowance rapidly.

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It is expected that this amendment brings the application with claims 1-17 to allowance. In the event any questions remain, please call the undersigned to resolve them.

Please charge any fee necessary to enter this paper to deposit account 50-0510.

Respectfully submitted,

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